

## Product datasheet for MR222530

### Prg4 (NM\_021400) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Prg4 (NM_021400) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Prg4
Synonyms:	CACP; DOL54; JCAP; lubricin; MSF; SZP
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR222530 representing NM_021400, <b>codon optimized</b> . Due to the complexity of NM_021400, the ORF clone is codon optimized for mammalian Expression. The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGCTGGAAGATTCTTCTGTTGTCTGTCTGTCTGCTTCCCGTGGTCCTCATTAGCAAGTCTCAT  
CTCAAGACCTCAGTTCTTGTGCTGGAAGGTGCGGAGAAGGCTACTCCCGGACGCTACCTGCAATTGTGA  
TTACAACGTCAACACTACATGGAGTGTGCCAGATTTCAAGAGGGTCTGTACCACCGAACTGTCTGC  
AAAGGCCGGTGCCTTGAATCTTTGCACGGGGCGGGAGTGCGACTGTGATTCTCAGTGTAAACAGTACG  
GTAAGTGTGCGCCGATTACGATAGTTTCTGTGAAGAGGTTACAATCCTACCAGCCGAGCCCTAAAAC  
TGCTCCTCCTCCTGGCGCCTACATACCATTAAGAGCACTACAAAACGACGCCGAAAAGCCCCAAG  
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CCCCCGCTGTTGACGAGGCTGGCTCAGGCTTGGACAATGGGGAGTTAAGCTCACACCTCCCCGCCCCG  
ATCCTCCGACAACCTCCACTCTAAAGTACAACATCTCCTAAGACCACTGCTGTAAGCCGTTACCCC  
CAAGCCCAGCCTCGACCAAACCTGAGACTAGCAAAGAAGCTAGCCTGGCCAGCAACAAAGAACTACA  
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AGGAAACGCGATCCGAGAGAAGACTTCTGACAAGGACGTCGAGCCGACCTCCACCACACCAAGAACTC  
AGCGCCAACTACAACCAAAAGCCCGTAACGACAACAAAGGAGCCAGTCCCACAACCCCAAGAACCT  
GAGCCTACTACACCAAGGAACCACTCTACTACCAAGAAACCTGAACCTACAACGCCGAGGAGCCCG  
AACCCACTACACCGAAGGAGCCGGAACCGACTACACCAAGGAACCTGAGCCAACCAACCCGAAGGAAC



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CGAGCCTACGACCCCTAAGGAGCCACCGCCACCACTAAAAAGCCGAGCCCACTACACCGAAAGAGCCT  
GAGCCGACGACCCAAAAGAGCCAGAACCAACCACCACCAAGGAGCCGAGCCCACTACCACAAAGGAGC  
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ACCCGAGCCTACCACTCCAAGGAGCCTGAGCCTACCCTCCGAAGGAGCCGAACCTACAACGCTTAAG  
GAACCTGAGCCTACCCTCCAAAGAGCCAGAGCCGACAACACCTAAAGAGCCAGAGCCTACTACTCCCA  
AAGAACCTGAACCTACAACCCCAAGGAACCCGAGCCACCACGCCAAAGGAACCCGAGCCTACTACA  
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CATTGAAAGAGCCAGAACCACCAACACCCAAAGGAACCCGAACCTACCACACCCAAAAGAGCCGAGCCAA  
GACCTTGAAGGAACCAGAGCCACCACCCCAAAGGAGCCTGAGCCAAACCCCTGAAAGAGCCTGAGCCT  
ACGACCCCAAAGGAGCCGAACCTACAACAACAAAGGAACCGAAAGCACAACGAAAGGAACCCGAGC  
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CAGTACTATAACATCGACGTTCCAACGAACTGCCCGGGCCATTACCACACGAAGCGGCCAGACACTGT  
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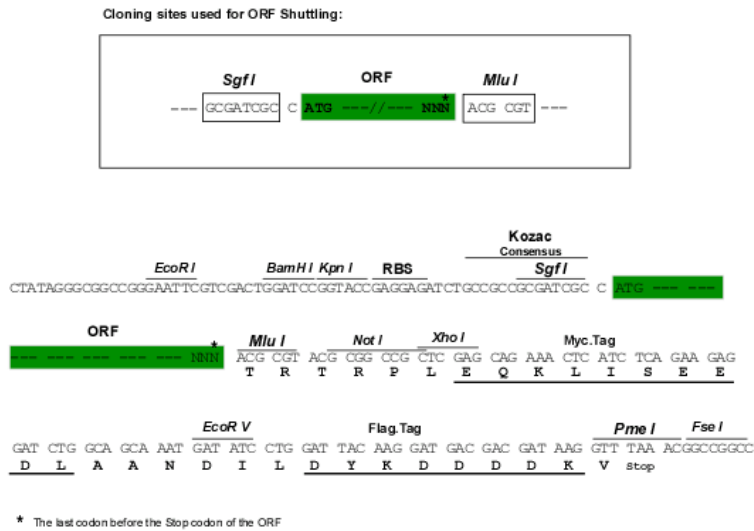
Protein Sequence: >MR222530 representing NM\_021400  
 Red=Cloning site Green=Tags(s)

MGWKILPVCLSLLLPVVLIQQVSSQDLSSCAGRCGEGYSRDATCNCDYNCQHMECCPDFKRVCTTELSC  
 KGRCFESFARGRECDQSCKQYKCCADYDSFCEEVHNPTSPSPKTAPPPPGASHTIKSTTKRSPKSPK  
 KTKKVVVESEEITEEHSVSENQESSSSSSSSSSTIRKIKSSKNSANRELQKNPKVKDNKNTPKKKPNPE  
 PPAVDEAGSGLDNGEFKLTPPPDPPTTPHSHKVTTSKTTAAKPVTPKPSLAPNSETSKEASLASNKETT  
 VETKETTATNKQSSASKKTTSAKETRSAEKTSKDVPEPTSTTPKNSAPTTTTKKPVTTTTKEPVPTPKPE  
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 EPEPTPKKPEPTTSPKTTTLKATTLAPKVTAPAEIIONKPEETTPASEDSDDSKTTLKPQKPKAPK  
 TKKPTKAPKPKTSTKPKTPKTRKPTTSPKTTTATPELNTTPEVMLPTTIPKQTPNPETAENVND  
 HEDADGGEKELIPGPPVLFPTAIPGTDLLAGRLNQGININPMLSDETNLGNGKPVDTLRLNGTLVA  
 FRGHYFWMLNPFPPSPRRITEVWGIPSPIDTVFTRCNCEGKTFKDSQYWRFTNDVVDGYPKQIVK  
 GFGGLTGKIVAALSIAYKDRPESVYFFKRGGINIQYTYKQPEPMKCTGRRPAINYSVYGEAAQVRRRRF  
 ERAVGFQTHTRIHYSVPMRVSQDKGFLHNEVKVSTMWRGFPNVVTSAILPNIRKPDGDYDYAFSKD  
 QYYNIDVPTRTARAITTRSGQTLSKIWYNCP

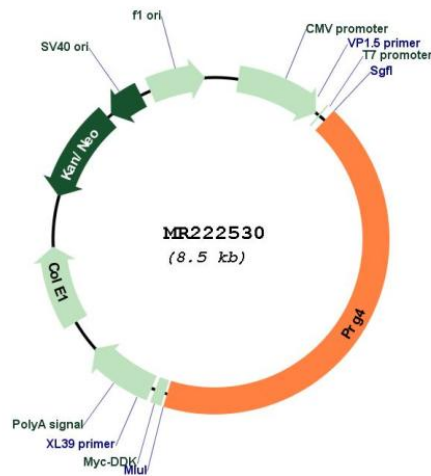
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_021400

ORF Size: 3663 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
  5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM\\_021400.3](#), [NP\\_067375.3](#)

RefSeq Size: 4278 bp

RefSeq ORF: 3666 bp

Locus ID: 96875

Cytogenetics: 1 G1

MW: 134.6 kDa

**Gene Summary:**

Plays a role in boundary lubrication within articulating joints. Prevents protein deposition onto cartilage from synovial fluid by controlling adhesion-dependent synovial growth and inhibiting the adhesion of synovial cells to the cartilage surface.[UniProtKB/Swiss-Prot Function]